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EXAMINER	
D AGOSTA, STEPHEN M	

ART UNIT	PAPER NUMBER
2683	

DATE MAILED: 02/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/996,511	SMITH, MALCOLM M.	
	Examiner	Art Unit	
	Stephen M. D'Agosta	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *2,8,14,20 and 26* is/are allowed.

6)☒ Claim(s) *1,6,7,12,13,18,19,24,25 and 30* is/are rejected.

7)☒ Claim(s) *3-5,9-11,15-17,21-23 and 27-29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-30 have been considered but are moot in view of the new ground(s) of rejection.

1. The amendment overcomes all of the examiner's objections.
2. Claims 2, 8, 14, 20 and 26 are allowed based on their highly detailed designs.
3. Claims 6-7, 12-13, 18-19, 24-25 and 30 are rejected based upon new art.
4. Claims 3-5, 9-11, 15-17, 21-23 and 27-29 are objected to.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, ~~3-5~~, 7, ~~9-11~~, 13, ~~15-16~~, 19, ~~21-22~~, 25 and ~~27-29~~ rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. US 5,940,762 and further in view of Muszynski US 5,850,607 and Boudreaux US 6,466,556 (hereafter Lee and Muszynski).

As per **claim 1**, Lee teaches a communication system (figure 2) comprising:

A BTS engaged in wireless communications with a first mobile and carrying data being transmitted between first and second mobile units (figure 2a shows a mobile phone #28 engaged in a call that inherently requires a second wired/wireless unit, C1, L5-10, and figure 4 shows CDMA network system interfaces as well); and

~~An other communication device~~ a communication device in communication with BTS over a local network (figure 2a, BTS connects to BSC's #20, or MSC inherently or PSTN #19), wherein one of the BTS and other device are dynamically selected by a selection procedure to perform a call anchor function for the data (figure 2a shows three BSC's #20 that would support the mobile if it roams – one being an anchor, C6, L23-33 - and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC), the selection procedure comprising determining a communication characteristic comprising at least one of the following:

- a communication characteristic comprising a traffic characteristic of the data. (abstract teaches "a BSC determines if sufficient network resources are available to conduct a connection/handoff" and "type of connection that exists between cell

systems, number of calls and frame offset", also see figure 3, also see C12, L9-65).

But is silent on a characteristic of wireless communication between the BTS and at least one of the first and second mobile units and a call anchor function for the data is dynamically relocated during transmission between the first and second mobiles.

Muszynski teaches a cellular telecommunications system (figure 1) having mobile exchanges, base stations and user mobile stations roaming in the system, the mobile exchanges are arranged to provide inter-exchange soft handoff with diversity combining. The mobile exchanges further are arranged to provide for control handoff, wherein user communications control handoff, wherein user communications control and signal diversity combining functions involved with the user communications are handed off from a first mobile exchange to a second mobile exchange (Abstract) **and** several methods implementing the above-mentioned CDMA system design objective can be readily identified for the above-referenced exemplary embodiment of a CDMA cellular telecommunications system. For example, the described closed loop MS transmit power control method has the objective to continuously equalize the received qualities of all uplink CDMA signals within a single BS against the background of rapidly changing radio propagation channels undergoing fast and slow fading processes. For this purpose, the BS measures periodically the received Eb/No value, indicative of the signal quality, from each MS CDMA uplink communication and subsequently transmits an appropriate power control command on the downlink communication channel to the MS which in turn sets the CDMA transmitter power accordingly. Ideally, all MS CDMA uplink signals are received at the BS with the same quality and in addition to that, minimum strength necessary in order to maintain the communication link subject to a predetermined quality threshold (C2, L26-44).

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that it uses a characteristic of wireless communication between the BTS anchor-relocation and at least one of the first and second mobile units , to provide means for making the handoff based on important characteristics of the RF signal.

As per **claim 6**, Lee teaches a communication system (figure 2) comprising:

A BTS engaged in wireless communications with a first mobile (figure 2a shows a mobile phone #28 engaged in a call, C1, L5-10, and figure 4 shows CDMA network system interfaces as well) and performing the steps of:

Carrying data being transmitted between the first mobile unit and a second mobile unit (figure 2a shows three BSC's #20 that would support the mobile if it roams and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC. A second mobile is inherent for mobile to wired/wireless communications); and

Performing a call anchor function for the data (one BTS being an anchor, C6, L23-33), **but is silent on** relocating the call anchor during transmission between mobiles to a different device in the system in response to a characteristic.

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that the anchor is relocated, to provide means for changing the cellular nodes supporting the communications links as the users roam.

As per **claim 7**, Lee teaches a method (figures 2-3) comprising:

Using a BTS to engage in wireless communications with a first mobile (figure 2a shows BTS's #22 and BSC's #20 to support mobile unit #28 communications)

Using BTS to carry data being transmitted between first and second mobile units (figure 2a shows a mobile phone #28 engaged in a call that inherently requires a second wired/wireless unit, C1, L5-10, and figure 4 shows CDMA network system interfaces as well); and

Using an other communication device to communicate with BTS (figure 2a, has BTS connecting to BSC's, #20 or MSC inherently or PSTN #19), AND using the communication characteristic to dynamically select one of the BTS and the other communication device to perform a call anchor function (figure 2a shows three BSC's #20 that would support the mobile if it roams – one being an anchor, C6, L23-33 - and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC),

Determining a communication characteristic comprising at least one of the following:

- a communication characteristic comprising a traffic characteristic of the data.

(abstract teaches "a BSC determines if sufficient network resources are available to conduct a connection/handoff" and "type of connection that exists between cell systems, number of calls and frame offset", also see figure 3, also see C12, L9-65).

But is silent on a characteristic of wireless communication between the BTS and at least one of the first and second mobile units and relocation of call anchor function.

Muszynski teaches a cellular telecommunications system (figure 1) having mobile exchanges, base stations and user mobile stations roaming in the system, the mobile exchanges are arranged to provide inter-exchange soft handoff with diversity combining. The mobile exchanges further are arranged to provide for control handoff, wherein user communications control handoff, wherein user communications control and signal diversity combining functions involved with the user communications are handed off from a first mobile exchange to a second mobile exchange (Abstract) **and** several methods implementing the above-mentioned CDMA system design objective can be readily identified for the above-referenced exemplary embodiment of a CDMA cellular telecommunications system. For example, the described closed loop MS transmit power control method has the objective to continuously equalize the received qualities of all uplink CDMA signals within a single BS against the background of rapidly changing radio propagation channels undergoing fast and slow fading processes. For this purpose, the BS measures periodically the received Eb/No value, indicative of the signal quality, from each MS CDMA uplink communication and subsequently transmits an appropriate power control command on the downlink communication channel to the MS which in turn sets the CDMA transmitter power accordingly. Ideally, all MS CDMA uplink signals are received at the BS with the same quality and in addition to that, minimum strength necessary in order to maintain the communication link subject to a predetermined quality threshold (C2, L26-44).

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that it uses a characteristic of wireless communication between the BTS anchors and at least one of the first and second mobile units, to provide means for making the handoff based on important characteristics of the RF signal.

As per **claim 12**, Lee teaches a method (figures 2-3) comprising:

Using a BTS to engage in wireless communications with a first mobile (figure 2a shows a mobile phone #28 engaged in a call, C1, L5-10, and figure 4 shows CDMA network system interfaces as well) and performing the steps of:

Using the BTS to carry data being transmitted between the first mobile unit and a second mobile unit (figure 2a shows three BSC's #20 that would support the mobile if it roams and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC. A second mobile is inherent for mobile to wired/wireless communications); and

Using the BTS to perform a call anchor function for the data (one BTS being an anchor, C6, L23-33) **but is silent on** relocating the call anchor during transmission between mobiles to a different device in the system in response to a characteristic.

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that the anchor is relocated, to provide means for changing the cellular nodes supporting the communications links as the users roam.

As per **claim 13**, Lee teaches a communication system (figures 2-3) comprising:

Means for engaging in wireless communications with a first mobile (figure 2a shows BTS's #22 and BSC's #20 to support mobile unit #28 communications)

Means for carrying data in a communication session being transmitted between first and second mobile units (figure 2a shows a mobile phone #28 engaged in a call that inherently requires a second wired/wireless unit, C1, L5-10, and figure 4 shows CDMA network system interfaces as well); and

Means for communicating with the means for engaging in wireless communications (figure 2a, has BTS connecting to BSC's, #20 or MSC inherently or PSTN #19), AND using the communication characteristic to dynamically select one of the BTS and the other communication device to perform a call anchor function (figure 2a shows three BSC's #20 that would support the mobile if it roams – one being an anchor, C6, L23-33 - and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC),

Means for determining a communication characteristic comprising at least one of the following:

- a communication characteristic comprising a traffic characteristic of the data.

(abstract teaches "a BSC determines if sufficient network resources are available to conduct a connection/handoff" and "type of connection that exists between cell systems, number of calls and frame offset", also see figure 3, also see C12, L9-65).

But is silent on a characteristic of wireless communication between the BTS and at least one of the first and second mobile units and relocation of call anchor function.

Muszynski teaches a cellular telecommunications system (figure 1) having mobile exchanges, base stations and user mobile stations roaming in the system, the mobile exchanges are arranged to provide inter-exchange soft handoff with diversity combining. The mobile exchanges further are arranged to provide for control handoff, wherein user communications control handoff, wherein user communications control and signal diversity combining functions involved with the user communications are handed off from a first mobile exchange to a second mobile exchange (Abstract) **and** several methods implementing the above-mentioned CDMA system design objective can be readily identified for the above-referenced exemplary embodiment of a CDMA cellular telecommunications system. For example, the described closed loop MS transmit power control method has the objective to continuously equalize the received qualities of all uplink CDMA signals within a single BS against the background of rapidly changing radio propagation channels undergoing fast and slow fading processes. For this purpose, the BS measures periodically the received Eb/No value, indicative of the signal quality, from each MS CDMA uplink communication and subsequently transmits an appropriate power control command on the downlink communication channel to the MS which in turn sets the CDMA transmitter power accordingly. Ideally, all MS CDMA uplink signals are received at the BS with the same quality and in addition to that, minimum strength necessary in order to maintain the communication link subject to a predetermined quality threshold (C2, L26-44).

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that it uses a characteristic of wireless communication between the BTS anchors and at least one of the first and second mobile units, to provide means for making the handoff based on important characteristics of the RF signal.

As per **claim 18**, Lee teaches a communications system (figures 2-3) comprising:

Means for engaging in wireless communication with a first mobile unit (figure 2a shows a mobile phone #28 engaged in a call, C1, L5-10, and figure 4 shows CDMA network system interfaces as well) comprising:

Means for carrying data in a session between the first mobile unit and a second mobile unit (figure 2a shows three BSC's #20 that would support the mobile if it roams and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC. A second mobile is inherent for mobile to wired/wireless communications); and

Means for anchoring the communication session (one BTS being an anchor, C6, L23-33) **but is silent on** relocating the call anchor during transmission between mobiles to a different device in the system in response to a characteristic.

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that the anchor is relocated, to provide means for changing the cellular nodes supporting the communications links as the users roam.

As per **claim 19**, Lee teaches a computer readable medium (figure 2 teaches the system and figure 3 teaches the computer logic/program required on network component processors) to perform the steps of:

Using a BTS to engage in wireless communications with a first mobile (figure 2a shows BTS's #22 and BSC's #20 to support mobile unit #28 communications)

Using BTS to carry data being transmitted between first and second mobile units (figure 2a shows a mobile phone #28 engaged in a call that inherently requires a second wired/wireless unit, C1, L5-10, and figure 4 shows CDMA network system interfaces as well); and

Using an other communication device to communicate with BTS (figure 2a, has BTS connecting to BSC's, #20 or MSC inherently or PSTN #19), AND using the communication characteristic to dynamically select one of the BTS and the other communication device to perform a call anchor function (figure 2a shows three BSC's #20 that would support the mobile if it roams – one being an anchor, C6, L23-33 - and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC),

Determining a communication characteristic comprising at least one of the following:

- a communication characteristic comprising a traffic characteristic of the data.

(abstract teaches "a BSC determines if sufficient network resources are available to conduct a connection/handoff" and "type of connection that exists between cell systems, number of calls and frame offset", also see figure 3, also see C12, L9-65).

But is silent on a characteristic of wireless communication between the BTS and at least one of the first and second mobile units and relocation of call anchor function.

Muszynski teaches a cellular telecommunications system (figure 1) having mobile exchanges, base stations and user mobile stations roaming in the system, the mobile exchanges are arranged to provide inter-exchange soft handoff with diversity combining. The mobile exchanges further are arranged to provide for control handoff, wherein user communications control handoff, wherein user communications control and signal diversity combining functions involved with the user communications are handed off from a first mobile exchange to a second mobile exchange (Abstract) **and** several methods implementing the above-mentioned CDMA system design objective can be readily identified for the above-referenced exemplary embodiment of a CDMA cellular telecommunications system. For example, the described closed loop MS transmit power control method has the objective to continuously equalize the received qualities of all uplink CDMA signals within a single BS against the background of rapidly changing radio propagation channels undergoing fast and slow fading processes. For this purpose, the BS measures periodically the received Eb/No value, indicative of the signal quality, from each MS CDMA uplink communication and subsequently transmits an appropriate power control command on the downlink communication channel to the MS which in turn sets the CDMA transmitter power accordingly. Ideally, all MS CDMA uplink signals are received at the BS with the same quality and in addition to that, minimum strength necessary in order to maintain the communication link subject to a predetermined quality threshold (C2, L26-44).

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that it uses a characteristic of wireless communication between the BTS anchors and at least one of the first and second mobile units, to provide means for making the handoff based on important characteristics of the RF signal.

As per **claim 24**, Lee teaches a computer-readable medium having a set of instructions operable to direct a processor (figure 2 teaches the system and figure 3 teaches the computer logic/program required on network component processors) to perform the steps of:

Using a BTS to engage in wireless communications with a first mobile (figure 2a shows a mobile phone #28 engaged in a call, C1, L5-10, and figure 4 shows CDMA network system interfaces as well) and performing the steps of:

Using the BTS to carry data being transmitted between the first mobile unit and a second mobile unit (figure 2a shows three BSC's #20 that would support the mobile if it roams and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC. A second mobile is inherent for mobile to wired/wireless communications); and

Using the BTS to perform a call anchor function for the data (one BTS being an anchor, C6, L23-33) **but is silent on** relocating the call anchor during transmission between mobiles to a different device in the system in response to a characteristic.

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that the anchor is relocated, to provide means for changing the cellular nodes supporting the communications links as the users roam.

As per **claim 25**, Lee teaches a communication system (figure 2) comprising:

A first network (figure 2a shows one network connected by BSC's);

A gateway connecting first network to second network (figure 2a shows connecting to second network, eg. PSTN, #19 which inherently requires gateway hardware as shown in figure 4, two #46's and/or #48. The examiner notes MSC's perform similar functionality and are inherent to Lee's cellular system);

Using a BTS to engage in wireless communications with a first mobile (figure 2a shows BTS's #22 and BSC's #20 to support mobile unit #28 communications) and carrying data being transmitted between first and second mobile units and in communication with first network (figure 2a shows a mobile phone #28 engaged in a call that inherently requires a second wired/wireless unit, C1, L5-10, and figure 4 shows CDMA network system interfaces as well); and

Using an other communication device to communicate with first network (figure 2a, has BTS connecting to BSC's, #20 or MSC inherently or PSTN #19), AND wherein the BTS and other device are dynamically selected to perform a call anchor function for the data by a selection process (figure 2a shows three BSC's #20 that would support

the mobile if it roams – one being an anchor, C6, L23-33 - and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC),

Determining a communication characteristic comprising at least one of the following:

- a communication characteristic comprising a traffic characteristic of the data. (abstract teaches "a BSC determines if sufficient network resources are available to conduct a connection/handoff" and "type of connection that exists between cell systems, number of calls and frame offset", also see figure 3, also see C12, L9-65).

But is silent on a characteristic of wireless communication between the BTS and at least one of the first and second mobile units and relocating the call anchor during transmission between mobiles to a different device in the system in response to a characteristic..

Muszynski teaches a cellular telecommunications system (figure 1) having mobile exchanges, base stations and user mobile stations roaming in the system, the mobile exchanges are arranged to provide inter-exchange soft handoff with diversity combining. The mobile exchanges further are arranged to provide for control handoff, wherein user communications control handoff, wherein user communications control and signal diversity combining functions involved with the user communications are handed off from a first mobile exchange to a second mobile exchange (Abstract) **and** several methods implementing the above-mentioned CDMA system design objective can be readily identified for the above-referenced exemplary embodiment of a CDMA cellular telecommunications system. For example, the described closed loop MS transmit power control method has the objective to continuously equalize the received qualities of all uplink CDMA signals within a single BS against the background of rapidly changing radio propagation channels undergoing fast and slow fading processes. For this purpose, the BS measures periodically the received Eb/No value, indicative of the signal quality, from each MS CDMA uplink communication and subsequently transmits an appropriate power control command on the downlink communication channel to the MS which in turn sets the CDMA transmitter power accordingly. Ideally, all MS CDMA uplink signals are received at the BS with the same quality and in addition to that, minimum strength necessary in order to maintain the communication link subject to a predetermined quality threshold (C2, L26-44).

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that it uses a characteristic of wireless communication between the BTS anchors and at least one of the first and second mobile units, to provide means for making the handoff based on important characteristics of the RF signal.

As per **claim 30**, Lee teaches a communication system (figure 2) comprising:

A first network (figure 2a shows one network connected by BSC's);

A gateway connecting first network to second network (figure 2a shows connecting to second network, eg. PSTN, #19 which inherently requires gateway hardware as shown in figure 4, two #46's and/or #48. The examiner notes MSC's perform similar functionality and are inherent to Lee's cellular system);

A first mobile (figure 2a, #28)

A BTS connected to first mobile and engaged in wireless communication with first mobile (figure 2a shows BTS's #22 and BSC's #20 to support mobile unit #28 communications), the BTS performing the steps of:

Carrying data being transmitted between first and second mobile units (figure 2a shows a mobile phone #28 engaged in a call that inherently requires a second wired/wireless unit, C1, L5-10, and figure 4 shows CDMA network system interfaces as well); and

Performing a call anchor function for the data (figure 2a, has BTS connecting to BSC's, #20 or MSC inherently or PSTN #19), AND (figure 2a shows three BSC's #20 that would support the mobile if it roams – one being an anchor, C6, L23-33 - and would connect via an MSC if the other mobile were in a different radio network and/or served by a different BSC) **but is silent on** relocating the call anchor during transmission between mobiles to a different device in the system in response to a characteristic.

Boudreaux teaches a method of controlling handover of real-time packet data flow within a wireless telecommunications system. Once it is determined that handover of real-time packet data flow is needed, the drift wireless gateway is prepared to become the serving wireless gateway. The anchor packet gateway is then prepared for serving wireless gateway relocation by having the anchor packet gateway initiate bicasting of downlink packet data flow. Uplink and downlink packet data flows are then monitored at the drift wireless gateway and the drift wireless gateway and the serving wireless gateway are synchronized for relocation. The drift wireless gateway is then utilized as the new serving wireless gateway (abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to modify Lee, such that the anchor is relocated, to provide means for changing the cellular nodes supporting the communications links as the users roam.

Allowable Subject Matter

Claims 2, 8, 14, 20 and 26 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

These claims recite highly specific designs not found in the prior art cited.

Claims 3-5, 9-11, 15-17, 21-23 and 27-29 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 703-306-5426. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 703-308-5318. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Stephen D'Agosta
2-14-05

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